

Serial No.: 10/743,855  
Response to Office Action Dated 10/3/05

### REMARKS

Applicants acknowledge receipt of the Office Action dated October 3, 2005, in which the Examiner entered a restriction requirement; rejected claims 1-24 as obvious in view of US 2002/0035033 to Muller and US 6,488,907 to Barnes et al. Applicants confirm the election of Group I and have cancelled claims 25-28.

#### Previously filed Supplemental IDS

Applicants note that a Supplemental IDS was filed on the same date (October 3, 2004) that the present Office Action was mailed. Applicant does not believe that a fee is required in order under 37 CFR 1.97, but if Applicants are in error, authorization to charge Deposit Account 03-2769 is hereby granted and consideration of the Supplemental IDS under 37 CFR 1.97(c) is requested.

#### Rejection of the Claims

Applicants respectfully traverse the rejection, on the grounds that the Examiner has failed to establish a prima facie case of obviousness. In order to support a rejection based on obviousness, the cited references must teach or suggest the claimed invention such that one skilled in the art would understand that the claimed invention could be practiced with an expectation of success.

It is well known that catalysis is highly unpredictable. As set out on pages 15 and 16 of the specification, not all permutations of a catalyst shell on a non-microporous support are effective for the claimed partial oxidation process. Applicants have discovered that "a non-microporous supported catalyst can offer a high effectiveness factor for methane partial oxidation without using very small particle sizes."

Claim 1 has been amended to require that the partial oxidation be carried out using a catalyst having an effectiveness factor greater than 0.1. Because the cited references do not teach or suggest the use of a catalyst having an effectiveness factor greater than 0.1 while under catalytic oxidation promoting conditions, claim 1 is allowable over the references.

In addition, claim 1 has been amended to recite that at least 75% conversion of the reactant gas is achieved. Support for this recitation can be found at paragraph [0038] of the specification as filed. Barnes does not teach or suggest a partial oxidation process in which at least 75% of the

149920.01/1856.18101

Serial No.: 10/743,855  
Response to Office Action Dated 10/3/05

reactant gas is converted and makes no suggestion as to how such a level of conversion could be reached. Thus amended claim 1 is further distinguishable over the cited references.

Conclusion

Applicants believe that the present amendments place all of the claims in condition for allowance. Entry of the amendments and allowance of the case is therefore respectfully requested. In the event that an extension of time is necessary in order for this submission to be considered timely filed, please consider this a Request for Extension of Time, and the Commissioner is authorized to charge the fee to Deposit Account 03-2769 of Conley Rose, P.C., Houston, Texas. If the Examiner believes that a telephonic interview would be beneficial, he is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



Marcella D. Watkins  
PTO Reg. No. 36,962  
CONLEY ROSE, P.C.  
P.O. Box 3267  
Houston, TX 77253-3267  
(713) 238-8000 (Phone)  
(713) 238-8008 (Fax)  
ATTORNEY FOR APPLICANTS